

REMARKS/ARGUMENTS

An attempt has been made to address each of the Examiner's points in the order they were raised in the Office Action:

OBJECTIONS

Objections to Drawings

The Examiner has objected to the drawings under 37 CFR 1.83(a) because the drawing of "said second frame is adjustably connected to the first frame", as set forth in claims 8, 15 and 18 is allegedly not shown. Applicant respectfully submits that this feature is shown in the drawings, specifically the "interconnection sections 56" shown in Figure 1 and described in the specification starting on page 7, line 24 to page 8, line 5.

More specifically, the specification states therein that:

"[i]nterconnection sections 56 between the first frame and the second frame are designed so that it requires minimum amount of interconnection preparations to the first frame but the interconnection still creates fixed and sturdy mechanical connection between the first and second frame. The second frame has all the features of the first frame; sometimes it is useful to attach also a number of guiding rolls and tail threading equipment to the second frame. The interconnection section 56 between the first and the second frame is designed, so that it enables very accurate positioning of the second frame 42 compared to the first frame 17. The interconnection allows adjustments in X (horizontal, in direction of the length of the machine), Y (horizontal, in cross direction of the machine) and Z (vertical) directions and most preferably the adjustment of one direction does not change the position in one of the other coordinates. The positioning accuracy must be approximately 1/100 mm. For attaching the second frame 42 to the first frame 17 a bolted joint or similar arrangement is preferred." (Emphasis added).

As shown in Fig. 1, each of the interconnection sections 56 comprises a plurality of holes through which bolts may be inserted and secured with nuts to adjustably and removably connect the first frame to the second frame. The position of each interconnection section 56 on the first frame is designed to overlap the corresponding interconnection section 56 on the second frame. The plurality of holes of each of the overlapping interconnection sections 56 allows for adjustments in the X (longitudinal) and Y (transverse) directions as to the precise point where the two frames are bolted together within each

interconnection section as would be appreciated by one of ordinary skill in the art in view of the specification and Fig. 1.

It is respectfully submitted, therefore, that the feature of “said second frame is adjustably connected to the first frame” is shown in Fig. 1 of the drawings as set forth above. Applicant respectfully requests, therefore, that the objection to the drawings under 37 CFR 1.83(a) be withdrawn.

Objections to Specification

The Examiner has objected to the specification under 37 CFR 1.71 as not clearly describing the subject matter. Specifically, the Examiner claims that the specification “does not clearly describe how the structure of the interconnection section is arranged in order to make the adjustments.”

As discussed above, each of the interconnection sections 56 shown in Fig. 1 comprises a plurality of holes through which bolts may be inserted and secured with nuts to adjustably and removably connect the first frame to the second frame. The position of each interconnection section 56 on the first frame is designed to overlap the corresponding interconnection section 56 on the second frame. The plurality of holes of each of the overlapping interconnection sections 56 allows for adjustments in the X (longitudinal) and Y (transverse) directions as to the precise point where the two frames are bolted together within each interconnection section as would be appreciated by one of ordinary skill in the art in view of the specification and Fig. 1.

As for the Z direction, which according to the specification is the vertical direction, i.e., relating to the amount of space between the first frame and the second frame, the specification does not expressly disclose a specific means or mechanism for adjusting spacing between the first frame from the second frame, such as some sort of spacer. Such vertical spacers certainly are known to those of ordinary skill in the art, particularly in view of the disclosure of the specification at page 9, lines 9-11 stating:

“[a] lubricated bronze bearing is commonly used bearing type here. In the linear sliding bearing type a spindle nut or other similar arrangement is used for moving vertically the calendar rolls 1 to 11.”

Thus, the specification clearly teaches the use of spindle nuts or other similar arrangements for vertically spacing components on or between the frames.

It is respectfully submitted, therefore, that the specification does in fact clearly describe how the structure of the interconnection section is arranged in order to make the adjustments in the X, Y and Z directions. Applicant respectfully requests, therefore, that the objection to the specification under 37 CFR 1.71 be withdrawn.

REJECTIONS

Claim Rejections Under 35 USC §112, First Paragraph

The Examiner has rejected claims 8 – 10, 15 and 18 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. More specifically, the Examiner has stated that the “specification does not clearly describe how the one frame is adjustably connected to the other frame and how do they mount to one another in order to allow adjustment in the x, y, z directions.” Applicant respectfully traverses the rejection of claims 8 – 10, 15 and 18 under 35 U.S.C. § 112, first paragraph.

As discussed above, the specification clearly enables claims 8, 10, 15 and 18 through the disclosure of the interconnection sections 56 shown in Fig. 1. Again, each interconnection section 56 comprises a plurality of holes through which bolts may be inserted and secured with nuts to adjustably and removably connect the first frame to the second frame. The position of each interconnection section 56 on the first frame is designed to overlap the corresponding interconnection section 56 on the second frame. The plurality of holes of each of the overlapping interconnection sections 56 allows for adjustments in the X (longitudinal) and Y (transverse) directions as to the precise point where the two frames are bolted together within each interconnection section as would be appreciated by one of ordinary skill in the art in view of the specification and Fig. 1.

With respect to claim 9 which recites that the “second frame (42) is adjustable in position in relation to the first frame (17) such that the adjustment is feasible in a X, Y and Z direction,” the specification is also enabling for the same reasons discussed immediately above with respect to the X (longitudinal) and Y (transverse) directions. As for the Z direction, which according to the specification is the vertical direction, i.e., relating to the amount of space between the first frame and the second frame, the specification does not expressly disclose a specific means or mechanism for adjusting spacing between the first frame from the second frame, such as some sort of spacer. Such vertical spacers certainly are known to those of ordinary skill in the art, particularly in view of the disclosure of the specification at page 9, lines 9-11 stating:

“[a] lubricated bronze bearing is commonly used bearing type here. In the linear sliding bearing type a spindle nut or other similar arrangement is used for moving vertically the calendar rolls 1 to 11.”

Thus, the specification clearly teaches the use of spindle nuts or other similar arrangements for vertically spacing components on or between the frames.

The patent law only requires that the inventor set forth in a patent specification sufficient information to enable a person skilled in the relevant art to make and use the invention. 35 U.S.C. § 112, first paragraph; *Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372, 55 USPQ2d 1279 (Fed. Cir. 2000). The invention that must be enabled is that defined by the claims of the patent. While the patent specification need not describe actual embodiments or give examples, the presence or absence of such information is a factor in determining the extent to which claims, especially broad claims involving unpredictable technology, are enabled. *See In re Wands*, 858 F.2d 731, 735, 8 USPQ2d 1400, 1402 (Fed. Cir. 1988).

In *In re Wands*, the Federal Circuit Court of Appeals stated that “**[a] patent need not disclose what is well known in the art.**” 858 F.2d at 735. (*Emphasis added*).

In *Atmel Corp. v. Information Storage Devices, Inc.*, 198 F.3d 1374, 1382, 53 USPQ2d 1225, 1230 (Fed. Cir. 1999), the Federal Circuit discussed this point further, stating:

“Paragraph 1 permits resort to material outside of the specification in order to satisfy the enablement portion of the statute because it makes no sense to encumber the specification of a patent with all the knowledge of the past concerning how to make and use the claimed invention. One skilled in the art knows how to make and use a bolt, a wheel, a gear, a transistor, or a known chemical starting material. The specification would be of enormous and unnecessary length if one had to literally reinvent and describe the wheel.”

(*Emphasis added*).

Also, in *In re Wands*, the court held that a patent specification complies with the statute even if a "reasonable" amount of routine experimentation is required in order to practice a claimed invention, but that such experimentation must not be "undue." *See, e.g., Wands*, 858 F.2d at 736-37, 8 USPQ2d at 1404 ("Enablement is not precluded by the necessity for some experimentation.... However, experimentation needed to practice the invention must not be undue experimentation. The key word is 'undue,' not 'experimentation.'") (footnotes, citations, and internal quotation marks omitted). In *In re Wands*, the Federal Circuit set forth a number of factors which a court may consider in determining whether a disclosure would require undue experimentation. These factors were set forth as follows:

(1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims.

Id. at 737, 858 F.2d 731, 8 USPQ2d at 1404. The Federal Circuit also noted that all of the factors need not be reviewed when determining whether a disclosure is enabling. *See Amgen, Inc. v. Chugai Pharm. Co., Ltd.*, 927 F.2d 1200, 1213, 18 USPQ2d 1016, 1027 (Fed. Cir.1991) (noting that the *Wands* factors "are illustrative, not mandatory. What is relevant depends on the facts.")

In the instant case, the facts are clear. This is not a case involving unpredictable technology and the specification discloses the use of spindle nuts or other similar arrangements for vertically spacing components on or between the frames. Thus, if any experimentation were required, it would not be "undue."

It is respectfully submitted, therefore, that in view of the above, the specification does in fact clearly enable claims 8-10, 15 and 18. Applicant respectfully requests the withdrawal of the rejection of claims 8 – 10, 15 and 18 under 35 U.S.C. § 112, first paragraph.

Claim Rejection Under 35 USC §112, Second Paragraph

The Examiner has rejected claim 18 under 35 U.S.C. § 112, second paragraph, as being indefinite in that no antecedent basis was provided for the recitation of "the x, y, and z directions."

In response, Applicant has amended claim 18 to recite "an X direction, a Y direction and/or a Z direction" to provide the requisite antecedent basis. Applicant respectfully requests the withdrawal of the rejection of claim 18 under 35 U.S.C. § 112, second paragraph.

Claim rejections under 35 USC §102

The Examiner has rejected claims 8 – 10 and 15 – 18 under 35 U.S.C. § 102(b) as being anticipated by Svenka et al ("SVENKA")(US 6,688,218). Applicant respectfully traverses this rejection of claims 8 – 10 and 15 – 18 under 35 U.S.C. § 102(b).

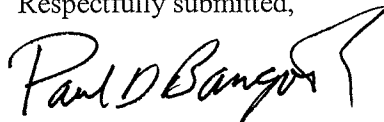
Each of claims 8 and 15-18 have been amended to more clearly recite a first stack of rolls comprising a first plurality of rolls *each* of which is arranged on a first frame, a second stack of rolls

comprising a second plurality of rolls each of which is arranged on a second frame. Moreover, each of claims 8 – 10 and 15 – 18 requires either that the second frame is removably and adjustably connected to the first frame (claims 8-10, 15 and 18) or that the first frame is movable in relation to the second frame (claim 16) or that the second frame is moved in relation to the first frame (claim 17). Even under the Examiner's interpretation of SVENKA, with which Applicant respectfully disagrees, SVENKA does not teach the above listed limitations of claims 8 – 10 and 15 – 18. SVENKA discloses only one frame (reference numeral 13 in FIGS. 1-3, reference numeral 113 in FIGS. 4-5). The sliding guides 17, 18, 17', 18', 118 and 119 of SVENKA are not frames. Even if they were, only one roll of each stack of rolls is connected to each of SVENKA's sliding guides 17, 18, 17', 18', 118 and 119. Thus, SVENKA clearly does not anticipate claims 8 – 10 and 15 – 18 as currently amended.

Lastly, regarding claims 9 and 18, as currently amended, it is clear that the X direction, Y direction and Z direction each refer to a different direction. From the specification, it is clear that the X direction runs along the longitudinal axis of the frame, the Y direction runs along the transverse axis of the frame and the Z direction refers to a direction running away from the frame, e.g., a direction away from a point on the first frame to a point on the second frame. *See* page 7, line 32 to page 8, line 2 of the specification.

Applicants have made a diligent effort to respond to the Office Action and to place the claims in condition for allowance. Accordingly, a Notice of Allowance for claims 8-10 and 15-18 is respectfully requested.

Respectfully submitted,



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